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AUTHOR Eyler, Janet; And Others
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ABSTRACT

The Comparing Models of Service-Learning project surveyed the impact of service-learning programs on students' citizenship values, skills, attitudes, and understanding nationwide. Data were obtained from 1,136 pre- and post-surveys of students who participated in service learning and 408 of their classmates who did not select service-learning options at 30 colleges and universities, as well as interviews with 65 students from 6 colleges at the start and end of the spring term. Findings indicated students who chose to participate in service-learning experiences and those who did not differed significantly on the pretest measure of virtually every outcome. Students who chose these activities were already much higher on each measure and the differences were sometimes substantial. Given these differences, colleges that hope that community service will add to the educational value of their programs may want to consider integrating these opportunities into their core curriculum. Service-learning programs appeared to have an impact on students' attitudes, values, skills, and perceptions even over the relatively brief period of a semester. The quality of the placement and its connection to the subject matter of the course had an impact on students' perceptions of what they get out of the program, on their relationships with faculty and other students, and on changes in their attitudes, skills, values, and conceptions of community issues. (Seven data tables are appended.) (YLB)

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Report of a National Study Comparing the Impacts of Service-Learning Program Characteristics on Post Secondary Students

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Janet Eyler, Dwight E. Giles, Jr. and John Braxton
Vanderbilt University

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The Comparing Models of Service-learning project is a national study of the impact of service-learning programs on students' citizenship values, skills, attitudes and understanding. The data discussed here were gathered from over 1500 students at 30 colleges and universities; students completed surveys at the beginning and end of their service-learning experience and program descriptions were completed by faculty or program directors. There were 1136 pre and post surveys from students who participated in service and 408 from classmates who did not select service-learning options. Additional data reported here were gathered in interviews with 65 students from 6 colleges during the spring of 1996; these students were interviewed at the beginning and end of the spring term. Analysis of the interview data is incomplete so only very preliminary results will be discussed here.

Questions Addressed in the Study

The three basic questions answered by the survey data reported here are:

1. Do students who choose service-learning differ from those who do not select this option?
2. Does service-learning have an impact on students' skills, attitudes, values and understanding?
3. Within the service-learning sample, do particular program characteristics have an impact on students' skills, attitudes, values and understanding?

Measurement of Program Characteristics

The program characteristics used in this analysis of the survey data are based on factor analysis of a set of student responses to descriptive statements about their service. Five factors emerged from the analysis. They include: **Placement Quality** which combined aspects of the placement such as having a variety of things to do, responsibility for important work, challenging

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and interesting activity, feeling appreciated by those the student work with; **Application** which described a close connection between the service work and what was being studied; **Discussion** which included both frequent discussion of service and the quality of that discussion e.e. analysis rather than simple description or sharing of feeling; **Writing** which included keeping journals and doing written assignments; and **Community Voice and Diversity** which combined having the opportunity to work directly with people in the community who were recipients of the service project, the involvement of community partners in shaping the nature of the service project and opportunities to work with people of different ethnic or cultural backgrounds.

Outcome Measures

Students were asked to compare their service-learning experience with other classes they have taken in terms of quality, learning, intellectual stimulation and motivation to work hard. They also identified the benefits that they felt they obtained from their service-learning; this list of benefits was developed through content analysis of open ended responses during the pilot phase of the study. In addition, students were also asked to rate the closeness of their relationship with faculty members and other students during their service-learning.

In exploring changes over the semester within the survey data, we have focused on students' assessments of their citizenship skills, their confidence that they can and should make a difference in their communities, their community related values and their perceptions of social problems and social justice. These are among the most frequently expressed goals of service-learning programs. (Giles and Eyler, 1997)

Students' assessment of their **political action skills, communication skills,** and **tolerance** are based on items developed in an early version of a citizenship skill measure developed as part of the 'Measuring Citizenship Project' of the Walt Whitman Center for the Culture and Politics of Democracy at Rutgers. These three scales had Cronbach Alphas ranging from .71 to .80. **Issue identification skill** and **ability to see consequences of action** are measured by single items, as are the values outcomes. Students' ratings of how they value such future roles as **'careers helping people', 'community leadership'** and **'influencing**

public policy' are drawn from measures developed by Markus, Howard and King (1993). The focus of these value items is on the students' own definition of how they will personally live their lives. The citizenship confidence items include a sense of **Personal Efficacy** in affecting community issues, a belief that the **Community itself can be Efficacious** in solving its problems, and feeling **Connected to the Community**. These scales developed by Scheurich (1994) yielded alphas with this sample ranging from .46 for community connectedness to .64 for personal efficacy. In Scheurich's original development of the scale within one student population, the scales had somewhat higher consistency; the extreme diversity of this sample may have affected reliability. Perceptions of social justice measures are designed to measure the complexity of students' conceptualizations of social issues, how these problems should be addressed and their empathy and openness to multiple points of view. This is a measure of what students think and how they think about social justice issues. **Locus of community problems** measures whether students take a systemic view of social problems, or tend to narrowly assign blame to the individuals facing the problem. The alpha for this scale was .72. Students' belief that **social justice is a critical issue** for the community and that changing policy is the most important approach were measured by single items; these both tap both perception of the nature of the problem and commitment; **perspective taking** measures student ability to put the self in the place of others; this scale had an alpha of .59 for this sample. The final scale in this set of measures focused on the **students' confidence in the rightness of their positions** on issues;this scale had an alpha of .50.

Methods of Analysis

T tests for independent samples were used when comparing service and non service students on the pre-test measures. Significant is reported at the .05 level. The statistical procedure used for the analysis of service-learning impact over the course of the semester was hierarchical linear multiple regression. Focus is on the effects of service-learning or service-learning program characteristics above and beyond the influence of such factors as: gender, race, parent's income,

age, and the student's own previous college volunteer experience as well as the pretest measure of the focal outcome factor where appropriate.

Results of the Analysis of the Student Survey

Selectivity: How Service and Non-service Students Differ

As previously reported, (Eyler and Giles, 1995) students who choose to participate in service-learning experiences and those who do not, differ significantly on the pre-test measure of virtually every outcome. Students who choose these activities are already much higher on each of these measures and these differences are sometimes substantial. If we hope that service-learning will contribute to students' knowledge and skills, to their development of greater community involvement and a stronger sense of social responsibility then we need to acknowledge that providing purely voluntary opportunities will not reach the students who may have the most to gain.

The Impact of Service-Learning on Student Outcomes: Comparing Students Who Participated in Service-Learning with Those Who Did Not

As Previously reported (Eyler, Giles and Braxton, 1996) participation in service-learning compared to non participation has a significant impact on increases in many outcome measures during the course of a semester. As expected positive interaction with faculty outside of the service related experiences also contributed independently to growth on most outcome measures. While most background characteristics were not significantly related to increases on outcomes, previous service often made a difference; it would appear that the effects of service are cumulative; students who have participated continue to gain from that participation. These results are from an analysis which compared service-learning students to students who did not choose the service option.

Skill Changes. Participation in service-learning predicted growth from pre to post test in the students' assessment of their political participation skills and their tolerance for others. There was no significant shift and no impact of service on their assessment of their issues identification

or communication skills. Faculty-student interaction was associated with growth on all skill measures.

Citizenship Confidence. Service-learning was a significant predictor of growth in students' confidence that they can be personally effective in their community, that they are connected to it, that the community can be effective in solving its problems, belief that service should be a school requirement and that citizens should volunteer to serve. Faculty interaction was an independent predictor of all but connectedness to the community.

Student Values. Service-learning was a predictor of growth in valuing a career helping people, volunteering time to the community and influencing the political system. Faculty-student interaction was more predictive of valuing being a community leader and not predictive of a growth in valuing a career helping others.

Conceptions of Social Justice. Service-learning was a predictor of change in the way students see social issues as well as how they think they should be addressed. It also captures the tendency of students to be able to place themselves in the shoes of others and to remain open to new opinions and information. Those who participated in the service experiences were more likely to show an increase in their tendency to see problems as systemic, to think that changing policy was a better approach than targeting individuals, to believe that improving social justice should be a priority for society and to be able to see things from the perspective of others and to be open to new ideas. Neither faculty-student interaction nor previous service were predictors of these outcomes.

The Impact of Service-Learning Program Characteristics on Student Outcomes

While service-learning was a predictor of change over the course of a semester for many outcome variables, these changes are not dramatic and thus we would not expect to find big differences among programs or program characteristics. There is, however, some evidence that how students experience their service-learning will affect changes in their citizenship attitudes, skills, values and understanding. Being able to identify the characteristics that have an impact on

desired outcomes will help us design more effective programs. Tables 1-7 illustrate the relationship between service-learning program characteristics including quality of placement, application of service to class subject matter, discussion frequency and level, use of writing assignments and community voice in the service project and student perceptions and outcomes.

Relationships with Faculty, Students, and Plans for Future Service (Table 1). In assessing the impact of service-learning versus non-service learning one control variable was close relationships with faculty on campus; this was designed to test the alternative hypothesis that faculty interaction is the key variable rather than service-learning. There is considerable literature to support the importance of relationships with faculty in student outcomes. (Pascarella and Terenzini, 1991) While faculty relationships did not supplant service-learning as a predictor of change, they were also predictors. One way in which service-learning may impact students is that it creates an environment where students work closely with faculty and other students and build the kinds of strong relationships that have a positive impact on their lives. Program characteristics associated with building these relationships would thus be important in designing effective programs. We thus explored the extent to which service-learning program characteristics influenced students perceptions that they had developed close relationships with faculty during service-learning as well as with other students. We also asked those who intended to participate in service the following semester, how much time they intended to devote to this activity.

As illustrated in Table 1 the quality of the service placement, the relationship or application of the subject matter of the class to the placement and vice versa, and class activities like frequent and analytic discussion and having writing assignments all increased the likelihood that students would report close relationships with faculty during their service-learning. Both the quality of the placement and class discussion were important for student relationships. The only positive predictor of commitment to future service was discussion; writing did not encourage future commitment.

Comparing Quality of Service-Learning with Other Classes (Table 2). Placement quality, application and discussion were all predictors of students' positive comparison of their service-

learning with non service-learning classes. While students were likely to give the whole experience a better quality rating if they identified community voice and opportunities to work with diverse others, these characteristics were negatively associated with their perception that the service-learning experience was more intellectually stimulating than other classes.

How Students Think they Benefited from their Service-Learning (Table 3). Different program characteristics were associated with different benefits identified by students after they had participated in service-learning. Placement quality, application and writing all were associated with learning and personal growth. Since writing includes journal keeping, this may facilitate the reflection that aids personal development. While discussion was associated both with increased interpersonal skills and development of specific skills related to their service, community voice and diversity was a predictor of students identifying increased social commitment and personal growth.

Program Characteristics and Changes in Citizenship Confidence (Table 4). Placement quality was a predictor of change in personal efficacy and community efficacy i.e. the belief that communities can solve their own problems. Where students felt that their studies and service work were connected i.e. application, they were more likely to feel connected to the community, feel that it was important to volunteer and believe that service should be a school requirement. Community voice and diversity was linked to change in personal efficacy and connectedness to community.

Program Characteristics and Change in Citizenship Skills (Table 5). The quality of the placement was most consistently identified with changes in skills such as political action skills, communication, ability to identify issues and tolerance. Application as well as writing assignments were associated with increased ability to identify issues and consequences of actions. Community voice and diversity was a predictor of the students' increased assessment of their tolerance.

Program Characteristics and Change in Concepts of Social Justice (Table 6). Students who experienced service-learning with strong application of classroom learning to service and vice versa were more likely to come to believe in the importance of changing public policy to solve social problems and in the importance of social justice. They were also more likely to have grown in openness to new information. On the other hand, students in high quality placements who did a lot

of writing were less likely to be open to opinions and were more certain of their point of view; perhaps the writing process increased their confidence in the validity of their point of view. Changes in endorsing the importance of social justice were also related to writing, discussion and community voice and diversity. Community voice and diversity was a predictor of change in problem locus; those with more experience in projects were community partners shaped the project and who had more opportunities to interact with people of diverse backgrounds were more likely to endorse a systemic locus of social problems.

Program Characteristics and Change in Citizenship Values (Table 7). Application and discussion were associated with valuing future roles as community leader and impacting public policy, whereas community voice and diversity were associated with a growing commitment to volunteering in the community and choosing a career helping others. Students who had identified their service-learning as being high in connecting subject matter to service and vice versa [application] were less likely to endorse acquiring wealth as a value and writing was a negative predictor for choosing community leadership.

Implications

Service-learning programs do appear to have an impact on students' attitudes, values, skills and perceptions even over the relatively brief period of a semester. Given the differences in pre-test scores between those who choose service and those who don't, it seems clear that colleges which hope that community service will add to the educational value of their programs may want to consider integrating these opportunities into their core curriculum rather than making them volunteer options.

In addition, there is evidence that the quality of the placement and its connection to the subject matter of the course as well as other characteristics of the service-learning program have an impact on students' perceptions of what they get out of the program, on their relationships with faculty and other students, and on changes in their attitudes, skills, values, and conceptions of community issues. These data give support to the view that reflection is important to quality

service-learning programs where the emphasis is on learning and support many of the principles of good practice that have been identified in the practice literature. (Honnet and Poulsen, 1989)

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TABLE 1

IMPACT OF SERVICE-LEARNING PROGRAM CHARACTERISTICS ON BUILDING CLOSE RELATIONSHIP WITH FACULTY AND OTHER STUDENTS AND ON FUTURE SERVICE COMMITMENT

n=1100 Service-Learning Participants

	Close to Faculty During S-L	Close to Students During S-L	Future Service Time Commitment
Application	.070	.020	.052
Placement Quality	.170***	.102**	.082*
Writing	.085*	-.041	-.094**
Discussion	.315***	.265***	.125***
Commun/Diversit	-.032	.048	.028
Gender	-.013	-.031	-.018
Other Service	.029	.113***	.262***
Age	.038	-.007	-.033
Minority	.052	-.015	.019
SES	-.021	.021	-.006

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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TABLE 2

COMPARING SERVICE-LEARNING WITH REGULAR CLASSES

Impact of Service-Learning Program Characteristics on Students' View that Service-Learning was a Superior Educational Experience than Their Regular Classes n=1131 Service-Learnng Participants				
	Quality	**Learning**	**Intellectually Challenging**	**Motivation to Work Harder**
Application	.121***	.296***	.312***	.130***
Placement Quality	.441***	.201***	.153***	.331***
Writing	.047	-.022	.017	.005
Discussion	.081**	.162***	.177***	.085**
Commun/Diversity	.072**	.052	-.110***	.021
Gender	-.039	-.077**	-.090***	-.042
Other Service	.009	-.013	.017	.061*
Age	-.003	.057*	.045	-.005
Minority	-.018	-.022	-.043	-.008
SES	.029	.017	.000	-.018

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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TABLE 3

IMPACT OF PROGRAM CHARACTERISTICS ON STUDENTS' PERCEPTIONS OF THE BENEFITS THEY RECEIVE FROM SERVICE-LEARNING

n=1131 Service-Learning Participants

	Learning	Personal Growth	Social Commit	Interpersonal	Specific Skill
Application	.383***	.199***	.132***	-.001	.061
Placement Qual	.044	.138***	.051	.199***	.148***
Writing	.131***	.140***	.062*	.039	.085**
Discussion	.104***	.033	-.034	.090**	.082*
Commun/Diversit	.017	.067*	.294***	.106**	-.072*
Gender	-.071**	-.008	-.077**	-.064*	.014
Other Service	.006	.040	.035	.097***	.040
Age	.020	.011	-.033	.016	-.029
Minority	-.014	.028	-.016	.022	.049
SES	-.038	-.065*	-.084**	-.027	-.034

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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TABLE 4

IMPACT OF SERVICE-LEARNING PROGRAM CHARACTERISTICS ON CHANGES IN CITIZENSHIP CONFIDENCE OVER THE COURSE OF THE SEMESTER

n= 1131 Service-Learning Participants

	Personal Efficacy	Community Efficacy	Community Connectedness	Important to Volunteer	Should Require Service
Application	.043	.042	-.029	.068*	.045
Placement Qual	.143***	.095**	.070	.086*	.027
Writing	.008	-.027	.004	-.042	-.029
Discussion	.057*	.057	.032	.047	.068*
Commun/Diversit	.063*	.051	.106***	.010	.010
Pretest Score	.380***	.404***	.337***	.421***	.622***
Gender	-.062*	-.040	-.112***	-.080**	-.047
Other Service	.031	.017	.093**	.032	-.039
Age	-.016	-.033	.000	.008	.018
Minority	-.029	-.039	-.050	-.047	-.020
SES	-.043	-.039	-.203	-.049	.015

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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TABLE 5

IMPACT OF SERVICE-LEARNING PROGRAM CHARACTERISTICS ON CHANGES IN STUDENT SKILLS OVER THE COURSE OF THE SEMESTER

n= 1131 Service-Learning Participants

	Political Action	Comunication	Issue Ident.	ID Consequences	Tolerance
Application	.004	.024	.091**	.076*	.033
Placement Qual	.130***	.111***	.036	-.000	.106***
Writing	.013	.004	.030	.094**	.026
Discussion	.056*	.005	.075*	-.004	-.002
Commun/Diversit	-.001	.037	.027	.060*	.054*
Pretest Score	.625***	.589***	.432***	.383***	.561***
Gender	-.006	-.060*	-.006	-.011	-.082***
Other Service	-.016	-.023	-.064*	.021	-.018
Age	.060**	.009	.064*	.002	-.000
Minority	-.043	-.018	-.000	-.044	.015
SES	-.019	-.018	.010	-.003	-.026

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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TABLE 6

IMPACT OF SERVICE-LEARNING PROGRAM CHARACTERISTICS ON CHANGES IN CONCEPTS OF SOCIAL JUSTICE OVER THE COURSE OF THE SEMESTER

n= 1131 Service-Learning Participants

	Problem Locus	Important to Change Policy	Importance of Social Justice	Perspective Taking	Confidence in Opinion
Application	.027	.116**	.097**	.044	.070*
Placement Qual	.041	.010	.003	.040	-.111**
Writing	-.014	.052	.054	-.011	-.064*
Discussion	-.024	.057	.067*	.022	-.009
Commun/Diversit	.067**	-.047	.062*	.024	.001
Pretest Score	.610***	.307***	.447***	.533***	.542***
Gender	-.089***	-.029	-.033	-.063*	-.014
Other Service	.041	-.007	.008	-.018	.025
Age	.015	-.036	-.008	-.011	-.032
Minority	-.004	.019	.027	-.004	-.016
SES	-.011	-.020	-.020	-.033	-.071**

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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TABLE 7

IMPACT OF SERVICE-LEARNING PROGRAM CHARACTERISTICS ON CHANGES IN STUDENT VALUES OVER THE COURSE OF THE SEMESTER

n= 1131 Service-Learning Participants

	Impact Policy	Com. Leader	Volunteering	Career Helping	Wealth
Application	.076*	.060	.065*	.056	-.050
Placement Qual	-.030	.030	.066	-.040	-.007
Writing	-.010	-.071*	-.052	-.032	-.041
Discussion	.107***	.084**	.029	.094**	.040
Commun/Diversit	.021	.007	.075*	.105***	.034
Pretest Score	.570***	.537***	.402***	.539***	.613***
Gender	.029	.023	-.057*	-.038	-.021
Other Service	.016	.035	.087**	.083***	-.064*
Age	.009	-.018	-.032	-.045	-.023
Minority	-.010	-.009	-.057*	-.067**	-.016
SES	.027	-.031	-.024	-.032	.023

Analysis is multiple hierarchical regression; * p<.05 , **p<.01, ***p<.001

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